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THE BIRDS OF CULEBRA ISLAND, PORTO RICO.

BY ALEXANDER WETMORE.

THE Island of Culebra, second in size of our possessions in the Virgin group, lies twenty miles east of Cape San Juan on the north-eastern point of Porto Rico. Though known with Vieques as one of the *Islas de Pasaje*, there is little more than passing mention made of Culebra in the accounts of historians or in other literature pertaining to Porto Rico. Culebra must have been discovered at an early date, probably by Columbus in 1493 as in that year he reached St. Croix and then crossed to Porto Rico. In 1530 the historian Inigo Abbad remarks that the few remaining aborigines left Porto Rico and settled on Mona, Vieques and other off-lying islands. Before that time Culebra was supposed to have been visited at times by the Arawakas from the south. As there was no fresh water supply on the island for many years, it remained almost uninhabited.

Since American occupation of Porto Rico, Culebra has been made a naval reserve as the inner bay, Ensenada Honda, harbors vessels of large size in safety. In 1899 the United States Fish Commission Steamer "Fish Hawk" was at Culebra Island from February 7 to 12 and a collection of birds was made by Mr. A. B. Baker and Dr. J. D. Milligan. In the report of the work done in Porto Rico by the scientists on the Fish Hawk (Evermann, 1902, p. 22-23) mention is made of Brown Pelicans and "coots, ducks, fish hawks and Kingfishers as well as various species of land-birds" seen about the small lagoon near the village on Culebra: this is to my knowledge the only attempt to enumerate the birds of Culebra Island in a published account. Mr. Cory (Auk, 1891, p. 37) lists a single specimen of *Cereba portoricensis* from Culebra Island. Mr. Ridgway (Birds of North and Middle America) makes reference to specimens from Culebra in several instances, from birds collected by the Fish Commission expedition or from a few skins sent in to the United States National Museum by officers stationed at the naval encampment. It is possible that Mr. Riise of St. Thomas secured skins from Culebra in the fifties but I have seen no mention of them.

After making a collection of birds on Vieques Island, on April 4, 1912, I crossed to Culebra on the mail sloop "Pedrito." The port, Playa Sardine, was reached about ten o'clock at night and accommodations were secured that night in the village. The following day through a letter from my friend, Mr. Harold Stiles, to Don Pedro Marqués I was given a two-roomed house on the hill just above the village and after settling my belongings, field work was begun. On April 11 I visited Louis Peña or Southwest Cay and on the 15th crossed to Culebrita for a day. Work on Culebra was carried on until April 22 when I left on the return journey to Porto Rico.

PHYSICAL FEATURES.

Culebra Island is approximately 7 miles long and from 4 to 5 miles wide. It is roughly triangular in shape and has the southeastern coast indented by a large bay known as Ensenada Honda. The village Playa Sardine lies at the base of the promontory between this bay and a smaller one on the south side. The island is hilly, with elevations rising three or four hundred feet above the sea. Rolling brush-grown pastures extend inland and some of the hills are densely covered with forest. At Playa Sardine and at Playa Brava (on the north coast) are small lagoons and in the western part of the island is a larger one known as Flamenco. The coast is in the main rough with rocky projecting headlands and narrow sandy beaches in the bays.

The small island of Louis Peña (Southwest Cay) lies a mile southwest of Playa Sardine. It is less than a mile long and is rather narrow with a hill at either end and a mangrove swamp in the center. Holes dug in the sand and lined with boards in out of the way places on this island betrayed the work of smugglers whose activities of late years have been largely curtailed through the efforts of internal revenue agents. Culebrita Island east of Culebra is slightly larger than Louis Peña. A lighthouse (kept at the time of my visit by Señor Guillermo Morris) stands on a flat-topped hill 500 feet above the sea. Much of this island is low and there is one lagoon. Cayo Norte (North East Cay) was not visited. It is said to be partly cleared. Besides these three islands

there are several smaller keys and reefs near them that are the haunts of various sea birds. In crossing from Vieques I passed near Cay Lobo (Cross Key) and found it a forbidding cactus covered rock with no evidence of bird life apparent.

Culebra, though subject at times to torrential rains, is dry and arid. The annual rainfall for the island for 1908 was 47.33 inches, for 1909, 54.63 inches, and for 1910, 35.81 inches. No other records are available. The population depends upon rain for its water supply and a cement catch basin draining into a municipal cistern has been built around the top of a hill. The sun was strong at the time of my visit and its rays penetrating but as the air was dry no bodily depression resulted. The trade winds cooled and refreshed when one could remain in the shade.

GENERAL CONDITIONS.

The vegetation of Culebra was, so far as my observations extended, similar to that of Vieques Island. Extensive pasture-lands were cleared out by peons with their machetes once or twice a year and a few fields were cultivated in bananas, yautias and sweet potatoes. Great growths of cactus were found in many places on the rocky soil. A prickly pear (*Opuntia* sp.) was very common and there was at least one species of *Cereus* and another form not known to me. These cactus growths with a few bushes and small trees covered large areas on the stony hills, and bound together with creepers, formed a dense growth difficult of passage. A slender line of mangroves bordered the inner bay and on the sandy outer beaches were great growths of Uvas de playa (*Coccolobis* sp.). The flamboyant tree was common and in April was in bloom. At a distance the symmetrical trees thrust up their heads like scarlet tents. The spiny Rallo (*Acacia farnesiana*) and the equally thorny Asoto Caballo (*Randia aculeata*) were abundant in the pastures and threatened to overwhelm the grassland.

The mongoose has not been introduced into Culebra Island fortunately for the existing fauna. Rats are common and their nests were seen in cocoanut palms. A *Molossus* was the only bat observed. It was common in early twilight and harbored in

crevices about houses. Rabbits have been introduced on a small island in the inner bay and have fairly overrun it. None have come ashore though only a hundred yards or so of water separate them from the main island.

Among lizards *Ameiva exul* was common and I collected one specimen of *Mabuya sloani*. Two *Anolis* were abundant (*Anolis cristatellus* and *A. stratulus*).

BIRD LIFE.

At the present time 53 species of birds are known from Culebra Island. One other, *Phaëthon æthereus*, is included as of uncertain status. Of the valid species 49 have been actually observed or collected by the writer and others, while five are included on the strength of reports made by residents on the island. Three forms of birds that are truly Porto Rican are found, viz.:

Myiarchus antillarum.

Holquiscalus brachypterus.

Tiaris o. bryanti.

There are therefore 22 birds that may be considered as endemic to the fauna of Porto Rico that do not reach Culebra. There are five missing on Culebra of those that extend their range as far as Vieques Island. Three of those lacking are common on Vieques. Following is the list:

Saurothera vieilloti (?)

Gymnasio nudipes (?)

Melanerpes portoricensis.

Tolmarchus taylori.

Dendroica adelaidæ.

The avifauna of Culebra is seen to be much poorer than that of Porto Rico and to show a slight decrease in the number of forms below that of Vieques. There are four birds ranging to Culebra that do not reach Porto Rico though all but the first one are found on Vieques, viz.:

Geotrygon mystacea.

Sericotes h. holosericeus.

Microlyssa e. exilis.

Elainea m. martinica.

BIRDS OF LOUIS PEÑA AND CULEBRITA ISLANDS.

During the work on Culebra Island the writer crossed on April 11 to Louis Peña or Southwest Cay lying just beyond the outer harbor at Playa Sardine. The following 14 species were noted on this visit:

<i>Phaëthon americanus.</i>	<i>Margarops f. fuscatus.</i>
<i>Fregata magnificens.</i>	<i>Vireosylva c. calidris.</i>
<i>Chamæpelia p. trochila.</i>	<i>Setophaga ruticilla.</i>
<i>Zenaida z. lucida.</i>	<i>Seiurus noveboracensis</i> subsp.
<i>Coccyzus m. nesiotis.</i>	<i>Dendroica p. bartholemica.</i>
<i>Tyrannus d. dominicensis.</i>	<i>Compsothlypis a. usneæ.</i>
<i>Elainea m. martinica.</i>	<i>Cæreba portoricensis.</i>

On April 15 the following 19 forms were observed on Culebrita Island:

<i>Pæcilonetta bahamensis</i>	<i>Streptoceryle a. alcyon.</i>
<i>Hæmatopus palliatus</i> (reported)	<i>Sericotes h. holosericeus.</i>
<i>Arenaria i. morinella.</i>	<i>Tyrannus d. dominicensis.</i>
<i>Pisobia fuscicollis.</i>	<i>Elainea m. martinica.</i>
<i>Sterna maxima.</i>	<i>Margarops f. fuscatus.</i>
<i>Chamæpelia p. trochila.</i>	<i>Mimus p. orpheus.</i>
<i>Zenaida z. lucida.</i>	<i>Vireosylva c. calidris.</i>
<i>Columba squamosa.</i>	<i>Dendroica p. bartholemica.</i>
<i>Crotophaga ani.</i>	<i>Cæreba portoricensis.</i>
	<i>Tiaris b. omissa.</i>

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ANNOTATED LIST.

1. **Podilymbus podiceps antillarum** Bangs. ANTILLEAN PIED-BILLED GREBE.—Reported from the lagoons.

2. [**Phaëthon æthereus** Linnæus. RED-BILLED TROPIC-BIRD.—Catesby (Natural History of Carolina, etc., 1743, appendix, p. 14) says that this species breeds in great numbers on some little islands at the east end of Porto Rico. Culebra or rocks near it may have been included.]

3. **Phaëthon americanus** Grant. YELLOW-BILLED TROPIC-BIRD.—On April 11 six or eight tropic-birds were circling about a rocky point on Louis Peña Island. At a distance the elongated rectrices were not visible so that the birds were mistaken at first for gulls. Three were collected but one blew out to sea and was lost. One wing-tipped bird bit me viciously when I grasped it. Other tropic birds were seen on April 13.

4. **Pelecanus occidentalis** Linnæus. BROWN PELICAN.—Common. In the shallow bay at Playa Sardine from two to twenty pelicans were found daily. Most of them had the seal brown cervical feathers of the breeding plumage developed but a few were still in dark immature plumage. The water in the bay was shallow and small fish were abundant. In feeding the pelicans rose, two or three together to circle thirty or forty feet in the air. When fish were sighted the birds dove one after another. Or when nothing appeared they set the wings and glided down over the surface of the water and then rose to circle again. In diving the birds turned straight down. The wings were closed just before the water was reached and the bird disappeared entirely under the surface. In a few seconds it would reappear, fly heavily for a few feet, settle on the water facing the wind and hold the point of the bill down to drain the pouch. When this was accomplished the point of the bill was thrown up and out and the captured fish were swallowed with a gulp. This done the pelican would rise and join its circling companions once more. In diving in very shallow water the birds turned their breasts and spread their wings to check their momentum never going below the surface. When satisfied all rested on rocks along the shore in characteristic pelican attitudes. On the west coast of Porto Rico fishermen believe that these birds when old and feeble commit suicide by hanging by the head from some crevice in the rocks.

5. **Sula leucogastra** Boddaert. BOOBY.—Boobies were said to come in flocks the first of May to nest on two small rocks north of Culebrita Island. None were seen.

6. **Fregata magnificens** Matthews. MAN-O'-WAR BIRD.—Seen

occasionally flying or circling high in the air. On April 15 one came over the boat as I was crossing to Culebrita and I shot but failed to secure it.

7. ***Butorides virescens cubanus*** Oberholser. CUBAN GREEN HERON.—Green Herons were fairly common in the mangroves bordering the bay known as Ensenada Honda. They were very wild. A few were seen on the lagoon called Flamenco and two were collected on April 9 and 13.

8. ***Florida cærulea cærulescens*** (Latham). LITTLE BLUE HERON.—This species was heard and seen occasionally about Ensenada Honda. One was collected February 9, 1899, by Dr. J. D. Milligan of the "Fish Hawk."

9. ***Phœnicopterus ruber*** Linnaeus. FLAMINGO.—Flamingoes were said to have been found formerly on Culebra Island. The lagoon known as Flamenco receives its name from this bird.

10. ***Marila affinis*** (Eyton). LESSER SCAUP DUCK.—At the time of my arrival on Culebra Island there were about twenty-five ducks on the lagoon at Flamenco. None were secured but they were supposed to be this species. Eight were still present April 21.

11. ***Pœcilonetta bahamensis*** (Linnaeus). BAHAMA PINTAIL.—A few of these ducks were seen with the lesser scaup ducks on the lagoon at Flamenco. April 9 two birds in worn plumage were secured by Don Pedro Marqués at Playa Brava. April 15 I found about twenty-five in a nearly dry lagoon on Culebrita Island and secured several. The flight of these birds is swift like that of a teal but on the wing the long neck makes them resemble *Dafila acuta*. This flock contained birds of both sexes about to breed and among them was one immature bird two-thirds grown.

12. ***Falco sparverius loquacula*** Riley. PORTO RICAN SPARROW HAWK.—A common resident. These birds were nesting at the time of my visit and were very tame. A female taken April 6 had an egg in the oviduct nearly ready to be deposited. Others examined had the tips of the rectrices worn to spines through abrasion in the nesting cavity. These sparrow hawks were alert and noisy. One was seen pursuing a Red-tailed Hawk screaming shrilly. And one day as I was climbing a steep hillside one came darting swiftly down at my head and was dropped only a few feet away. They were feeding largely on lizards picked expertly from rocks or tree trunks and were seen pursuing birds unsuccessfully.

13. ***Buteo borealis*** (Gmelin). RED-TAILED HAWK.—Red-tailed Hawks were seen occasionally soaring over the forested hill tops.

14. ***Pandion haliaëtus carolinensis*** (Gmelin). OSPREY.—Single Ospreys were observed circling over hills near the sea on April 8 and 17. This species is probably a regular winter visitant.

15. ***Fulica caribæa*** Ridgway. CARIBBEAN COOT.¹—April 13 before daylight one of these birds was shot at the border of a lagoon. The skin of this bird was stolen by a cat. Another coot was seen on April 19 but was not secured. These birds I thought were migrants. They may nest in one or two localities.

¹ It has been found recently that the coot from Porto Rico is *F. caribæa* instead of *F. americana* (cf. Wetmore, 1916, p. 34).

16. **Gallinula galeata galeata** (Lichtenstein). FLORIDA GALLINULE. — April 19 at daylight one of these gallinules was heard clucking in the mangroves bordering a lagoon. As it flew out I shot it. This bird and the coots observed were without doubt migrants. The lagoons here are not suited for their nests as there are no marshy growths around them.

17. **Rallus longirostris caribæus** Ridgway. CARIBBEAN CLAPPER RAIL. — Clapper Rails were common in the fringe of mangroves bordering the bay Ensenada Honda keeping entirely to the densest growth. Their loud explosive notes came all day long from the mangroves but only one bird was seen and collected. Though vociferous enough when not molested when they found that they were being followed they became silent and slipped away through the dense growth. They were heard grunting at night from the swamps at the foot of the hill below my house.

18. **Hæmatopus palliatus** Temminck. OYSTERCATCHER. — Oystercatchers were said to come at times to rocky points on Culebra and Culebrita Islands. They were known locally as the Coracolero.

19. **Eupoda wilsonia rufinucha** (Ridgway). RUFOUS-NAPED PLOVER. — There is a single bird in the U. S. National Museum collected on Culebra by Dr. J. D. Milligan of the "Fish Hawk" on February 11, 1899.

20. **Arenaria interpres morinella** (Linnæus). RUDDY TURNSTONE. — April 15 three or four of these birds were feeding on a mudbar in a lagoon on Culebrita. One was taken.

21. **Actitis macularia** (Linnæus). SPOTTED SANDPIPER. — Winter visitant. Common during the time of my visit. A few spotted sandpipers were seen along the sandy beaches but the greater number were found in the mangroves. As I sat watching for Clapper Rails they came walking all about me on the open muddy floor of the swamp, gleaning around the projecting roots and wading through shallow pools of water. A female taken April 9 was molting into spotted plumage.

22. **Pisobia fuscicollis** (Vieillot). WHITE-RUMPED SANDPIPER. — Two were seen April 15 on the north shore of Culebrita Island. One was shot but fell in a channel and was carried away by the currents.

23. **Larus atricilla** Linnæus. LAUGHING GULL. — One was seen April 13 flying above Playa Sardine and on the fifteenth four or five were perched on a buoy in Ensenada Honda. One of these was taken. After this date they were seen often circling over the inner bay sometimes high in the air.

24. **Sterna maxima** Boddaert. ROYAL TERN. — Usually a few of these terns were feeding with the pelicans in the shallow bay at Playa Sardine. Daily they came flying over the town high in the air calling harshly. On one occasion a flock of fifty or sixty passed over pursuing a frigate bird. On another day a frigate bird was seen closely following a tern which zigzagged from side to side in efforts to escape. Near Culebrita Island, April 15, a hundred or more were circling over a flat rocky islet. From their actions I thought that they were preparing to nest here. One was taken April 11.

25. **Geotrygon mystacea** (Temminck and Knip). TEMMINCK'S

GROUND-DOVE.— There is a male in the U. S. National Museum taken on Culebra Island by Mr. A. B. Baker, February 9, 1899.¹

26. **Chæmepelia passerina trochila** Bonaparte. PORTO RICAN GROUND DOVE.— Resident. Ground doves were among the most abundant birds on the island. They were found in the roads and through the fields sometimes gathered in flocks of a dozen or more. About the lighthouse on Culebrita Island they were common and when alarmed darted away into shelter of the cactus. When Sparrow Hawks were in sight it was difficult to make them fly but on other occasions they whirled up in great confusion. There was no indication of breeding as yet in a series that were collected.

27. **Zenaida zenaida lucida** Noble. ZENAIDA DOVE.— Resident. Fairly common in the dense growths of dry forest. On the ground these doves appear much like Mourning Doves. One was taken on April 10.

28. **Patagionas squamosa** (Bonnaterre). SCALED PIGEON.— Resident. Formerly these large pigeons were said to be common but now few are left. April 10 one flew from a clump of mangroves and lit above me. This bird was collected. Another was heard hooting but could not be found.

29. **Amazona vittata gracilipes** Ridgway. CULEBRA PARROT.— Formerly parrots were common on Culebra Island but now they are supposed to be extinct. Their destruction is due to the fact that they were considered a table delicacy and were hunted continually. When common they were said to do considerable injury in the plantations of bananas and plantains. Two specimens in the National Museum were collected by A. B. Baker on February 11 and 12, 1899. Another bears merely the date 1899.

30. **Coccyzus minor nesiotus** Cabanis. JAMAICAN MANGROVE CUCKOO.— Resident. These cuckoos were fairly common on Culebra Island and were seen on Culebrita and Louis Peña. Specimens were collected on Culebra April 13, 17 and 19, and on Culebrita, April 15.

31. **Crotophaga ani** Linnaeus. ANI.— Resident. The Ani was very common on Culebra Island. These birds were found in flocks of from six to twenty individuals in the open pastures. They fed largely around the cattle, running, hopping and flying in endeavors to keep ahead of the work bulls browsing through the grass that they might secure the insects frightened up. One morning about 20 were flushed from the mangroves around a lagoon where they had spent the night. One day I shot four from a flock and a land crab seized one and dragged it into a hole nearly out of sight before I could prevent it.

32. **Streptoceryle alcyon alcyon** (Linnaeus). BELTED KINGFISHER.— A winter visitant. Kingfishers were seen along the bays and lagoons and at times in the mangrove swamps. The last one was noted April 21. Señor Guillermo Morris, the lighthouse keeper on Culebrita Island, claimed that occasionally Kingfishers remained through the summer along the small channels swarming with minnows that were found between these islands.

33. **Microlyssa exilis exilis** (Gmelin). GILT-CRESTED HUMMINGBIRD.

¹ Cf. Riley, Proc. Biol. Soc. Washington, 1903, XVI, p. 14.

— On April 12 a female of this species was secured in some mangroves. On other occasions I thought that I saw these hummers but was not certain. Apparently the species is a rare resident.

34. **Sericotes holosericeus holosericeus** (Linnæus). GREEN CARIB.— Resident. These large hummers were common everywhere on Culebra but were especially abundant in the mangroves bordering the lagoons. The birds were tame and unsuspicious and showed considerable curiosity. They began nest-building in the mangroves the tenth of April and the breeding season was well under way at the time of my departure. Intruding Honey Creepers and warblers were chased through the tree tops the hummers rattling their wings loudly. Though this sound was heard many times I was unable to explain how it was made. Several nests were found by watching the females. The birds flew to their nests without fear though sometimes I discovered that they were built only a few feet from my head. The nests were of the usual hummingbird type and were placed on small limbs from ten to thirty feet from the ground. The material in most of them was a soft cottony fiber taken from cactus, while externally they were covered with lichens. On April 19 a nest containing two heavily incubated eggs was collected. Others noted were still empty. Birds were collected on April 6, 8, 9, 10, 12, 15, 19 and 20.

35. **Anthracothorax aurulentus** (Audebert and Vieillot). PORTO RICAN MANGO.— Resident. This hummingbird was not common. The few birds seen were found in brush grown pastures. Specimens were taken on April 6, 10 and 19. A male in the National Museum collection was taken on February 11, 1899, by Dr. J. D. Milligan.

36. **Tyrannus dominicensis dominicensis** (Gmelin). GRAY KINGBIRD.— A common resident. Dozens of Gray Kingbirds roosted in the mangroves about the lagoon at Flamenco. In the morning at the first indication of coming light one would fly out calling loudly while others answered from below. From then until the sun was half an hour high the birds called incessantly from perches or on the wing making a considerable volume of sound. Following this morning concert they spread through the hills to feed. Signs of breeding were noted by April 10 and from then on the birds were often seen in pairs. April 13 one was seen carrying nesting material. Specimens were collected on April 6, 8, 10, 13 and 17.

37. **Myiarchus antillarum** (Bryant). ANTILLEAN FLYCATCHER.— On April 6 and 20 the unmistakable whistled notes of this flycatcher were heard near Punto Soldado but in the dense forest growth the bird could not be found. The species has not been recorded before from Culebra.

38. **Elainea martinica martinica** (Linnæus). ANTILLEAN ELAINEA.— Fairly common in suitable localities. I believed them to be summer visitants here as on Vieques. The species had not been recorded from the island until my visit.

On Culebra the Elaineas frequented thick growths of cactus and spiny shrubs on the dry hillsides. They were more settled here than I had found them on Vieques in March. The birds moved about little, flying a few feet

at a time and then remaining perfectly still. A times attracted by their explosive notes I watched for half an hour without catching sight of them. Twice I heard them singing a sweet warbling song. As on Vieques Island they were few in number. About twenty were heard during my stay. Birds were collected on April 15 and 20. The species was seen on Louis Peña April 11 and Culebrita April 15.

39. **Margarops fuscatus fuscatus** (Vieillot). PEARLY-EYED THRASHER.—A common resident. These birds frequented dense brushy growth but were easily called into the open by "squeaking." They were found at times at the borders of mangrove swamps. One was seen on a low perch watching the fiddler crabs on the mud beneath it with great interest. Specimens were secured on April 6, 10, 15 and 19.

40. **Mimus polyglottos orpheus** (Linnaeus). JAMAICAN MOCKINGBIRD.—A fairly common resident. The mockingbird was less common on Culebra than on Vieques. They were found usually in the trees and bushes of upland pastures. At the time of my visit the birds were breeding and the males were singing constantly. Birds were collected on April 6, 8, 17 and 20.

41. **Vireosylva calidris calidris** (Linnaeus). JAMAICAN VIREO.—This vireo was noted on Louis Peña Island and Culebrita. None were seen on Culebra itself. One was taken on Louis Peña April 11. It is probably a rare summer visitant to the region under discussion.

42. **Setophaga ruticilla** (Linnaeus). REDSTART.—A winter visitant, fairly common at the time of my work on Culebra. The last Redstart noted was seen April 19. Though a few adult males were observed most of the birds recorded were females or males in immature plumage. Specimens were taken April 9 and 12.

43. **Seiurus noveboracensis noveboracensis** (Gmelin). WATER-THRUSH.—A fairly common winter visitant. In April Water-Thrushes were migrating and their numbers varied from day to day. They were heard singing daily in the mangrove swamps. Specimens were collected April 6 and 12.

44. **Seiurus noveboracensis notabilis** Ridgway. GRINNELL'S WATER-THRUSH.—One specimen of this form was collected April 12. The relative abundance of the two subspecies of *Seiurus noveboracensis* can be established only by further observations.

45. **Seiurus aurocapillus** (Linnaeus). OVENBIRD.—There is a specimen of the Ovenbird in the U. S. National Museum collected by A. B. Baker of the "Fish Hawk" on February 11, 1899. This species was not observed by the writer and it is probable that it had departed northward before my arrival.

46. **Dendroica discolor** (Vieillot). PRAIRIE WARBLER.—A winter visitant. The Prairie Warbler was noted April 6, 7, 9 and 10. On the ninth there was a small wave of migrant warblers and several of this species were observed. One shot on the sixth was so fat that it could not be preserved. Additional birds were taken April 9 and 10.

47. **Dendroica coronata** (Linnæus). MYRTLE WARBLER.— There is a specimen of the Myrtle Warbler in the U. S. National Museum secured by A. B. Baker on February 9, 1899. This species is probably a rather rare winter visitant.

48. **Dendroica petechia bartholemica** Sundevall. PORTO RICAN YELLOW WARBLER.— An abundant resident. The mangroves bordering the bay Ensenada Honda were favorite haunts of these birds but many were found in the trees in the dry pastures. On the sandy beaches they were found in dense growths of *Uvas de playa* (*Coccolobis* sp.). In April they were paired and were about to nest. The males sang through the heat of the day, a song resembling that of *Dendroica æstiva*. Several birds in odd transition plumage from juvenal to adult were taken. A series was collected on April 8, 9, 11, 12, 13 and 15.

49. **Compsothlypis americana usneæ** Brewster. NORTHERN PARULA WARBLER.— A common winter visitant. In April the Parula was the most common of the migrating warblers. On April 11 in a warm sheltered growth of mangroves I heard one singing and from then on they sang often, sometimes a mere whisper but usually as loudly as they do in their northern homes. Two were collected on April 9 and the birds were observed until April 19.

50. **Mniotilta varia** (Linnæus). A winter visitant. One was taken from a small flock of migrating warblers on April 9. Another was seen on April 12.

51. **Cœreba portoricensis** (Bryant). PORTO RICAN HONEY CREEPER.— A common resident. Honey Creepers were found everywhere on the island where there was cover for them. April 9 a bird was seen building a nest, as yet merely a loose ball of grass though the circular opening was already formed. Both male and female were seen working on other nests. This month apparently began a new breeding season. Young birds still having the superciliary stripe yellow were common. The Honey Creepers used their nests as roosts and I noticed that they did not appear in the morning until half an hour or more after other birds were active. A large series was collected between April 6 and 20. Grains of sand were found in 73 out of 149 stomachs examined from Porto Rico and the surrounding islands. This is strange as very little vegetable matter was eaten.

52. **Holquiscalus brachypterus** Cassin. PORTO RICAN BLACKBIRD.— These blackbirds were said by Don Pedro Marqués to be found at times near Playa Brava. I saw none personally.

53. **Tiaris bicolor omissa** (Jardine). CARIB GRASSQUIT.— A common resident. At the time of my visit many of these Grassquits were breeding. Half a dozen pairs were nesting in the tall grass around one water hole. In other localities hundreds were feeding in the fields in loose flocks. On Culebrita these little finches were very common about the lighthouse. Many specimens were taken between April 6 and 20.

54. **Tiaris olivacea bryanti** (Ridgway). BRYANT'S GRASSQUIT.— A single male was collected April 8. No others were seen.